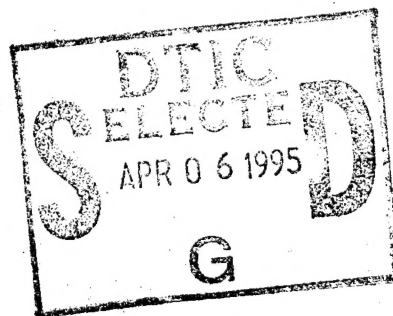


Prehistoric, Historic and Architectural Resources Along
the Proposed Channel of West Fire Prairie Creek,
Jackson County, Missouri

by

Kenneth Brown
Byron Dixon
Susan Richards



A Survey Report Submitted to the Department of the Army,
Kansas City District Corps of Engineers
In Accordance with Contract Number DACW41-77-M-1036.

September 1979

DISTRIBUTION STATEMENT A

Approved for public release;
Distribution Unlimited

19950404 043

0013

ABSTRACT

Descriptions of the archaeological, architectural, and historic resources to be affected by construction of the proposed channel for West Fire Prairie Creek, Jackson County, Missouri, are presented. The archaeological, architectural and historic surveys were intensive. Pedestrian reconnaissance and interviews with local citizens resulted in the location of two archaeological sites, 23JA185 and 23JA186, although no significant architectural or historical sites were encountered.

Descriptions of archaeological materials recovered from surface collections and test excavations at site 23JA85 are presented. Based on the results of manually excavated test pits and soil phosphate analyses, it was determined that 23JA85 lies within the construction limits of the rechanneling of the Little Blue River. Finally, recommendations for the preservation of archaeological, architectural, and historic resources are presented, as well as recommendations for nominations to the National Register of Historic Places.

REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

1a. REPORT SECURITY CLASSIFICATION UNCLASSIFIED			1b. RESTRICTIVE MARKINGS		
2a. SECURITY CLASSIFICATION AUTHORITY			3. DISTRIBUTION/AVAILABILITY OF REPORT APPROVED FOR PUBLIC RELEASE; UNLIMITED DISTRIBUTION		
2b. DECLASSIFICATION/DOWNGRADING SCHEDULE					
4. PERFORMING ORGANIZATION REPORT NUMBER(S)			5. MONITORING ORGANIZATION REPORT NUMBER(S)		
6a. NAME OF PERFORMING ORGANIZATION UNIVERSITY OF KANSAS		6b. OFFICE SYMBOL (If applicable)	7a. NAME OF MONITORING ORGANIZATION		
6c. ADDRESS (City, State, and ZIP Code)			7b. ADDRESS (City, State, and ZIP Code)		
8a. NAME OF FUNDING / SPONSORING ORGANIZATION KC DISTRICT CORPS OF ENGINEERS		8b. OFFICE SYMBOL (If applicable) EP-PR	9. PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER DACW41-77-M-1036		
8c. ADDRESS (City, State, and ZIP Code) 700 FEDERAL BUILDING, 601 E. 12TH STREET KANSAS CITY, MISSOURI 64106-2896			10. SOURCE OF FUNDING NUMBERS		
			PROGRAM ELEMENT NO.	PROJECT NO.	TASK NO.
11. TITLE (Include Security Classification) PREHISTORIC, HISTORIC AND ARCHITECTURAL RESOURCES ALONG THE PROPOSED CHANNEL OF WEST FIRE PRAIRIE CREEK, JACKSON COUNTY, MISSOURI					
12. PERSONAL AUTHOR(S) KENNETH BROWN, BYRON DIXON, AND SUSAN RICHARDS					
13a. TYPE OF REPORT FINAL		13b. TIME COVERED FROM _____ TO 1979		14. DATE OF REPORT (Year, Month, Day) 1979 SEPTEMBER	
				15. PAGE COUNT 54	
16. SUPPLEMENTARY NOTATION					
17. COSATI CODES			18. SUBJECT TERMS (Continue on reverse if necessary and identify by block number) archaeological architectural reconnaissance historical excavations phosphate rechanneling preservation		
FIELD	GROUP	SUB-GROUP			
19. ABSTRACT (Continue on reverse if necessary and identify by block number) Descriptions of the archaeological, architectural, and historic resources to be affected by construction of the proposed channel for West Fire Prairie Creek, Jackson County, Missouri, are presented. The archaeological, architectural and historic surveys were intensive. Pedestrian reconnaissance and interviews with local citizens resulted in the location of two archaeological sites, 23JA185 and 23JA186, although no significant architectural or historical sites were encountered. Descriptions of archaeological materials recovered from surface collections and test excavations at site 23JA85 are presented. Based on the results of manually excavated test pits and soil phosphate analyses, it was determined that 23JA85 lies within the construction limits of the rechanneling of the Little Blue River. Finally, recommendations for the preservation of archaeological, architectural, and historic resources are presented, as well as recommendations for nominations to the National Register of Historic Places.					
20. DISTRIBUTION/AVAILABILITY OF ABSTRACT <input checked="" type="checkbox"/> UNCLASSIFIED/UNLIMITED <input type="checkbox"/> SAME AS RPT. <input type="checkbox"/> DTIC USERS			21. ABSTRACT SECURITY CLASSIFICATION UNCLASSIFIED		
22a. NAME OF RESPONSIBLE INDIVIDUAL			22b. TELEPHONE (Include Area Code) (816) 426-3402		22c. OFFICE SYMBOL CEMRK-EP-PR

TABLE OF CONTENTS

	<u>Page</u>
Prehistoric Cultural Resources	1
Introduction	1
Previous Research	1
Environmental Setting	2
Physiography	2
Cherts	3
Flora	3
Fauna	4
Climate	4
Artifact Classes	4
Prehistoric Culture Sequence	6
Paleo-Indian (12,000 to 8,000 B.C.)	6
Early Archaic (8,000 to 5,000 B.C.)	6
Middle Archaic (5,000 to 3,000 B.C.)	6
Nebo Hill and Langtry Complexes (3,000 B.C. to A.D. 1)	8
Kansas City Hopewell (A.D. 1 to A.D. 500)	8
Late Woodland (A.D. 500 to A.D. 1000)	8
Steed Kisker Complex (A.D. 1000 to A.D. 1200)	8
(A.D. 1250 to A.D. 1700)	9
Historic (A.D. 1700 to Present)	9
Field Methods	9
Sites 23JA185 and 23JA186	9
23JA185	9
23JA186	14
Summary and Conclusions	14
Site 23JA85	14
Diagnostic Artifacts and Cultural Affiliation	15
Summary	25
Recommendations	27
Historical Survey in the Area of West Fire Prairie Creek	28
Architectural Survey Along West Fire Prairie Creek	31
Summary and Recommendations	39
References Cited	40

LIST OF FIGURES

<u>Figure</u>	<u>Page</u>
1 Location of site 23JA185	10
2 Location of site 23JA185 with respect to the proposed channel for West Fire Prairie Creek	11
3 Views of site 23JA185	12
4 Chipped-stone artifacts from 23JA185	13
5 Test areas on site 23JA85	14
6 Test squares and soil phosphate values on site 23JA85 . .	23
7 Chipped-stone artifacts from site 23JA85	24
8 Map showing the location of archaeological and historical areas near the survey region	26
9 Buildings located in Lake City Arsenal	34
10 Buildings located in Lake City Arsenal	35
11 Buildings located in Lake City Arsenal	36
12 Residence located in Lake City Arsenal and barn located on private property	37
13 Houses located on private property adjacent to the proposed West Fire Prairie Creek channel	38

LIST OF TABLES

<u>Table</u>	<u>Page</u>
1 Summary of taxonomic systems utilized by authors who have conducted research in the Plains and Midwestern United States	7
2 Materials recovered from the surface at site 23JA85 . . .	17
3 Materials recovered from test squares at site 23JA85 . . .	18-22
4 Pottery recovered from the surface and test excavations at 23JA85	27

ACKNOWLEDGEMENTS

The authors would like to thank Dr. Alfred E. Johnson, of the Museum of Anthropology at the University of Kansas, for editorial assistance. Artifact illustrations were prepared by Jean Colglazier, of the Museum of Anthropology, and site location maps by Norman Carpenter, Department of Geography, University of Kansas.

Accession For	
NTIS CRA&I	<input checked="" type="checkbox"/>
DTIC TAB	<input checked="" type="checkbox"/>
Unannounced	<input type="checkbox"/>
Justification	
By	
Distribution /	
Availability Codes	
Dist	Avail and/or Special
A-1	

Prehistoric Cultural Resources

Kenneth L. Brown

Introduction

In compliance with current environmental regulations and policies, the U.S. Army Corps of Engineers, Kansas City District, contracted with the University of Kansas, Museum of Anthropology, to conduct an inventory and assess the significance of archaeological, historical and architectural resources located along the proposed channel for West Fire Prairie Creek, Stage V of the Little Blue River channel-modification project, Jackson County, Missouri. This information is essential for evaluating the potential impact on culturally-significant resources and in developing a program of mitigative action or preservation for these resources. Work was coordinated with the Missouri State Historic Preservation Office and the Missouri Archaeological Survey. Presented in this report are descriptions of the local environmental setting, the sites and cultural materials recovered and evaluations and recommendations for avoidance of adverse impacts. Recommendations are presented for sites to be nominated to the National Register of Historic Places.

Another aspect of this report stems from the fact that the U.S. Army Corps of Engineers is engaged in the construction of the Little Blue River Channel in Jackson County, Missouri. The channel modification begins at Blue Mills Road and proceeds upstream approximately 25 miles. Site 23JA85, located along the Little Blue River, was believed to possibly be within the construction limits of the Stage II of the channel modification project. Surface collections, test excavations, and soil analyses were performed to determine the limits of the site within the channel right-of-way.

Previous Research

The Museum of Anthropology at the University of Kansas has been conducting archaeological research in the Little Blue River Valley in Jackson County, Missouri since 1973. During the spring of 1973, the University and the National Park Service entered into a contractual agreement, Number CX600-3-0068, authorizing the Museum of Anthropology to conduct a preliminary archaeological resource survey in the Little Blue River Valley. The purpose of the survey was to assess the impact of channel re-modification and reservoir construction on the archaeological resources of the endangered area. Fieldwork was completed in June and July 1973 (Heffner 1974:1).

During the spring of 1975, the University and the U.S. Army Corps of Engineers entered into contractual agreement, Number DACW41-75-M-1648, authorizing the Museum of Anthropology to conduct a second and more thorough cultural resource survey along the channel of the Little Blue River. The purpose of the survey was to assess the impact of channel-modification activities along the Little Blue River Corridor from Blue Mills Road upstream to the southern boundary of Stage IV construction above Little Blue, Missouri. The survey area included all of Stages I-IV, as well as the channel corridor upstream of Grandview, Missouri. Historic, prehistoric and historic-architectural resources of the channel corridor were evaluated (Reid 1975:1).

During the summer of 1975, the University of Kansas and the U.S. Army Corps of Engineers entered into a contractual agreement, Number DACW41-76-M-0197, authorizing the Museum of Anthropology to conduct test excavations of significant sites located in Stage I and II construction areas (Heffner 1976:1). It has been stated previously (Heffner 1974, 1976; Reid 1975) that channel relocation will have an immediate impact upon the prehistoric cultural resources located in the Little Blue River Valley. The valley was intensively occupied over a long period of time, and channel relocation will destroy evidence of this occupation. On the other hand, with the cooperation of the U.S. Army Corps of Engineers in mitigation of the impact upon cultural resources, it should be possible to collect the necessary information to permit a proper understanding of prehistory in the Little Blue River Valley prior to the destruction of the cultural resources.

Environmental Setting

An extensive consideration of the environmental setting of the Little Blue River Valley is presented in Baumler (1976). The following brief summary places emphasis on local resources available to the prehistoric inhabitants of the area.

Physiography

The Little Blue River flows southwest-to-northeast into the Missouri River, draining the central portion of Jackson County, Missouri, which is located in the Scarped Plains (McCourt 1917:7). Prominent among local topographic features are the valleys of the Missouri and Little Blue. Their confluence is marked by a wide, deep, alluvial floodplain. West Fire Prairie Creek, a Little Blue tributary, drains the northeastern corner of Jackson County. A unique lake which seems to have originated from the shifting of surrounding sand dunes, was at the present location of Lake City Arsenal, a prominent modern facility on West Fire Prairie Creek. At one time the lake drained both to the east and west (McCourt 1917:15).

The valley of West Fire Prairie Creek is uneven due to low sandy ridges which rise from the surrounding bottoms which are nearly level. The material forming these ridges consists of redeposited loess and

deposits of sand. The sand contains grains of quartz, quartzite and other materials which are common in local glacial drift (McCourt 1917: 11).

Glacial drift outcrops in the northern part of the county between Buckner and Sibley. The main deposits are found north of West Fire Prairie Creek Valley. It is possible that the Kansan Glacial ice sheet pushed across the Missouri Valley at a point between Buckner and Sibley and in so doing forced the lower Kansas River to drain along the route of West Fire Prairie Creek, which was later abandoned by the River. The drift consists of boulder clay which contains sand, gravel and boulders (McCourt 1971:69).

Yellowish, fine-grained silt or loam found along the valley of the Missouri River is loess. It is younger than the drift upon which it is deposited, but is considered of Pleistocene age. Excavations show the loess averages about 16 feet thick to a distance of three miles from the Missouri River, dropping to practically nothing in the next two miles.

Recent deposits occupy the valleys of the principal streams. They consist of clay, sand, gravel, and boulders. In the northern portion of the county there is considerable reworked loess that may be classified as alluvium. Thickness of the deposits increase with the width of the floodplain. Along West Fire Prairie Creek the alluvium is as much as 70 feet thick (McCourt 1917:70-73).

Cherts

Cherts suitable for manufacture of chipped-stone artifacts were locally available in limestone members of the Kansas City Group (Zeller 1968). Chipped-stone artifacts are described in this report as being made from one of three types of chert: 1) Winterset, 2) Westerville, and 3) Argentine. Winterset, a dark bluish-gray colored chert, outcrops in the Winterset limestone member of the Kansas City Group. Westerville, a tan-to-buff colored chert, outcrops in the Westerville limestone formation in the southwestern portion of Jackson County. Argentine, orange in color and fossiliferous, outcrops in limestones in the southwestern portion of Jackson County. Non-local cherts are defined as those obtained from sources not available within Jackson County and which their principal locations are not known.

Chipped-stone artifacts are also described as being manufactured from either heated or non-heated chert. Crabtree and Butler (1964) have suggested that the function of heat treating chert is to improve flaking qualities.

Flora

There are two major components to the vegetation of the Little Blue River Valley. First, there are vegetation zones paralleling the Missouri River which include the Missouri River floodplain forest,

slope-upland forest, and the upland prairie. These zones form a succession as one goes south or north from the Missouri. Perpendicular to the Missouri are the major tributaries, the Little Blue and Big Blue Rivers. The valleys of these rivers are large enough to have their own distinctive floodplain forest. They have linear stretches of slope-upland forest paralleling their courses through the upland topography into expanses of upland prairie (Baumler 1976:39-41). A search of the U.S. government land surveys (c. 1920) indicates the abandoned valley occupied by Lake City Arsenal was swampy where not covered with floodplain prairie (Baumler 1976).

Fauna

The tributary river valleys provided fish, waterfowl, raccoon, opossum, squirrel, black bear and rabbit. The slope-upland forest was the habitat of deer, skunk, turkey, raccoon and squirrel, while the upland prairie was the home of bison, elk, jackrabbit and prairie chicken (Baumler 1976:40-42).

The abandoned valley in which Lake City Arsenal is now located, probably formed an important waterfowl refuge. A number of major waterfowl migration corridors intersect in the Kansas City region. It has been estimated that 1,500,000 dabbling ducks follow the Missouri River corridor south in their fall migrations (Bellrose 1968:6). Around Kansas City, the fall migration corridor for diving ducks divides three ways: due south toward western Louisiana, southeast toward eastern Louisiana, and east along the Missouri River (Bellrose 1968:11). The northwest Missouri region is a major staging area for blue or lesser snow geese on their northward spring migration (Bellrose 1968:21).

Climate

The mean annual temperature for Kansas City, Missouri is 53.2° F. January, the coldest month, has a mean temperature of 26.2° F., while July, the hottest, averages 77° F. Average annual precipitation is 37.8 inches, and the growing season between the last and first killing frosts ranges between 164 and 216 days (Jewett and Newell 1935:156).

Artifact Classes

In this report terms used to describe artifacts follow conventional usages.

Flakes: Any piece of chert removed from a larger mass by the application of force (Crabtree 1972:64), and which has at least one of the following: 1) striking platform remnant; 2) bulb of percussion; 3) compression rings; or, 4) a hinge fracture.

Utilized Flakes: A flake which has discernible wear in the form of small, random flake scars along the lateral edges. Flake scars occur marginally rather than invasively.

Retouched Flakes: A flake which has regularly spaced flake scars along the lateral margins. Flake scars do not occur invasively.

Potlids: Any piece of chert resulting from heating chert to high temperatures and thereby causing fractures to occur. Fractures are usually circular and basin shaped (Purdy 1974:41; Crabtree 1972:84).

Shatter: Any piece of worked chert with multiple flake scars, but without a regular shape or recognizable striking platform.

Core: Any piece of chert which has a recognizable striking platform and has systematic alignment of cleavage scars on the various faces.

Unifaces: A piece of shatter or flake which has continuous, invasive modification on one face of the blank to produce a well defined working edge.

Bifaces: A flake or unidentifiable blank which has continuous, invasive modification on both faces of the blank to form a regularly shaped tool with well defined working edges.

Projectile Points: A flake or unidentifiable blank which has continuous, marginal or invasive modification on one or both faces of the blank to produce a triangular or lanceolate form with a well defined working edge. Stems, side-notches, corner-notches or basal notches, used to facilitate hafting, must be present.

Worked Stone: Any piece of stone, other than chert, which has been modified into a tool or artifact with a regular shape.

Unworked Stone: Any piece of stone, other than chert and limestone, which has not been modified. Most common types are granite and sandstone.

Limonite and Hematite: Pieces of the mineral hematite which have not been modified and limonite which often occurs as inclusions in the soil.

Limestone: Any piece of unworked limestone. These frequently have indications of having been subjected to intense heat.

Burned Earth: Any piece of fired earth which does not have a regular shape and which lacks particles of temper. Burned earth is most often associated with fire hearths.

Pottery: A piece of fired clay which has recognizable interior and exterior surfaces and which usually contains particles of temper.

Prehistoric Culture Sequence

The sequence of occupation in the Little Blue River Valley can be divided into a series of 'periods' indicative of technological, exploitative, and settlement systems. Data used to define some of the earlier 'periods' (Table 1) are tentative and, for the most part, derived from areas near the Little Blue River Valley. The later 'periods' are well represented in the Little Blue River Valley and are, for the most part, defined on the basis of the local archaeological data recovered during previous projects. Table 1 shows a summary of taxonomic systems utilized by authors who have conducted research in the Plains and Mid-western United States. The taxonomic system used in this report is based on the ones developed by Johnson (1974) and Chapman (1975). Johnson's taxonomic system was derived from data collected from along Brush Creek in Platte County, Missouri, a distance of only 50 km northwest of the confluence of the Little Blue and Missouri Rivers. The revised system is based on data recovered from along the Little Blue River, and is considered a local system applicable to only the Little Blue River Valley and adjacent areas.

Paleo-Indian (12,000 to 8,000 B.C.)

The initial period for which evidence of human occupation in the Kansas City area has been found is the Paleo-Indian period. This period is represented only by isolated surface finds of fluted Clovis projectile points. Information from other areas (Frison 1978) indicates that the people of this period were nomadic groups of hunter-gatherers depending primarily upon now-extinct fauna. Judging from the absence of fauna normally associated with Paleo-Indian remains and the scarcity of fluted projectile points, it is assumed that their use of the region was minimal or sites are deeply buried.

Early Archaic (8,000 to 5,000 B.C.)

In the Kansas City area, this period is represented by surface finds of Dalton, Hardin Barbed, and Agate Basin-like projectile points. Beginning in this period and continuing through the entire Archaic sequence, there was a diversification of the resources being utilized. There is a general lack of knowledge of human occupation in the Kansas City area for the Early Archaic period.

Middle Archaic (5,000 to 3,000 B.C.)

This period is represented by a side-notched projectile point complex (Martin 1976:18). The complex is represented by surface finds and small sites (Reeder 1978). There is a general lack of knowledge of human occupation in the Kansas City area for the Middle Archaic period.

Table 1

Summary of Taxonomic Systems Utilized by Authors Who Have Conducted
Research in the Plains and Midwestern United States

	Kansas Antiquities Commission	Johnson 1974	Chapman 1975	Wedel 1959	Little Blue Valley Sequence
1800	Historic		Historic	Kansa	Historic
1600	Late Ceramic		Late Mississippian	Oneota Aspect	
1400					
	Middle Ceramic		Middle Mississippian	Nebraska Aspect	
1200		Steed- Kisker			Steed- Kisker
1000			Early Mississippian		
		Late Woodland		Hopewellian	Late Woodland
500	Early Ceramic		Late Woodland		
		Kansas City Hopewell	Middle Woodland		Kansas City Hopewell
AD BC					
1000		Late Archaic	Early Woodland		Nebo Hill and Langtry
2000	Archaic		Late Archaic	Archaic	
4000		Middle Archaic	Middle Archaic		Middle Archaic
6000					
8000		Early Archaic	Early Archaic		Early Archaic
10000	Paleo- Indian		Dalton	Paleo- Indian	
12000			Paleo- Indian		Paleo- Indian
			Early Man		

Nebo Hill and Langtry Complexes (3,000 B.C. to A. D. 1)

This period is thought to be represented by two lithic complexes, the Nebo Hill lanceolate point complex and a contracting stemmed point complex hereafter referred to as the Langtry complex (Martin 1976:18). Recent excavations at the Nebo Hill type site, 23CL11 (Reid 1978), and the Sohn site, 23JA110 (Reeder 1978), indicate Nebo Hill was a hunter-gatherer complex exploiting the forest-prairie ecotone. The recovery of fiber tempered potsherds from 23CL11 extends the known range of this earliest North American ceramic ware further north and west (Reid 1978:247).

Kansas City Hopewell (A.D. 1 to A.D. 500)

This complex is characterized by corner-notched and shallow side-notched or expanding stemmed projectile points. The pottery is grit-tempered, with the earliest forms having a variety of decorative configurations on the rims while later forms usually have plain surfaces. Vessels are conical in shape. Large villages in the river valleys are associated with this complex. Ancillary camps are oftentimes found upstream of the larger villages. Burial mounds are oftentimes on bluffs adjacent to the larger village sites. It is believed subsistence was based primarily on hunting and gathering with only minimal reliance upon agriculture (Johnson 1976:7-15).

Late Woodland (A.D. 500 to A.D. 1000)

This period is characterized by small, asymmetrical, corner-notched and unnotched arrow points made on small flakes. Pottery consists of both plain and cordmarked exterior surfaces. Pottery is predominately tempered with crushed granite and sherds. Sites tend to be small, seasonally occupied encampments. There is a general lack of evidence for the use of tropical cultigens. Sites tend to be relatively clean, in that lithic and pottery debris do not occur in great quantities. One site, 23JA85 (this volume), is assigned to the Late Woodland period.

Steed Kisker Complex (A.D. 1000 to A.D. 1200)

This complex is characterized by small, triangular, side-notched arrow points. Shell-tempered pottery with plain surfaces and globular shapes also characterize this complex. Maize agriculture was practiced, with hunting and gathering of locally available flora and fauna still of great importance. Houses are square to rectangular in outline and were of wattle-and-daub construction (Wedel 1943:67-71; Shippee 1972). Small clusters of haphazardly placed houses on the flood-plain tend to characterize the settlement pattern. Low, circular burial mounds occur on bluff tops adjacent to some of the small villages.

(A.D. 1250 to A.D. 1700)

This time span is presently not represented by any known sites. The proto-historic antecedents of the Missouri and Kansa Indians undoubtedly occupied the Kansas City region, but evidence of these occupations is scanty.

Historic (A.D. 1700 to Present)

Sites assigned to the Historic period pertain to the time of European settlement of the area. The presence of porcelain, glass and metal are the main criteria for defining sites as Historic.

Field Methods

Survey methods included interviews with local collectors, landowners and tenants, and a pedestrian reconnaissance of the entire impact area. Ground visibility conditions were generally good, with most terrain in open pasture or cultivated fields. When chert flakes were noticed, during pedestrian reconnaissance, the locus of concentration was defined by systematically traversing the field, terrace, or slope. Surface grab samples, collections gathered from a site with no further controls for provenience, were obtained. Site size was estimated in m² and horizontal limits defined. Materials collected were washed and cataloged in the Museum laboratory, University of Kansas.

Sites 23JA185 (Figs. 1-3) and 23JA186

23JA185

Location: NE $\frac{1}{4}$ of NW $\frac{1}{4}$ of Section 1, township 49 N, range 31 W.

Description: Site 23JA185 is located adjacent to a small tributary at the base of a north-facing bluff. The site, which is circular in shape, covers approximately 1500 m². There were no diagnostic artifacts recovered. The site is presently under cultivation.

Four retouched flakes were found (Fig. 4). One, Fig. 4(C)), a possible knife, which is made on a blade, exhibits wear resulting from light cutting activities. The other three retouched flakes exhibit wear suggestive of heavy scraping activities. The general lack of cultural materials from the surface may indicate that the site is more deeply buried. It is recommended that this site be tested to determine horizontal and vertical extent and to acquire diagnostic artifacts.

<u>Materials Recovered</u>	<u>Chert Type</u>	<u>Quantity</u>
flakes	Winterset	13
	Heated Westerville	1
retouched flakes	Winterset	4
sandstone		1

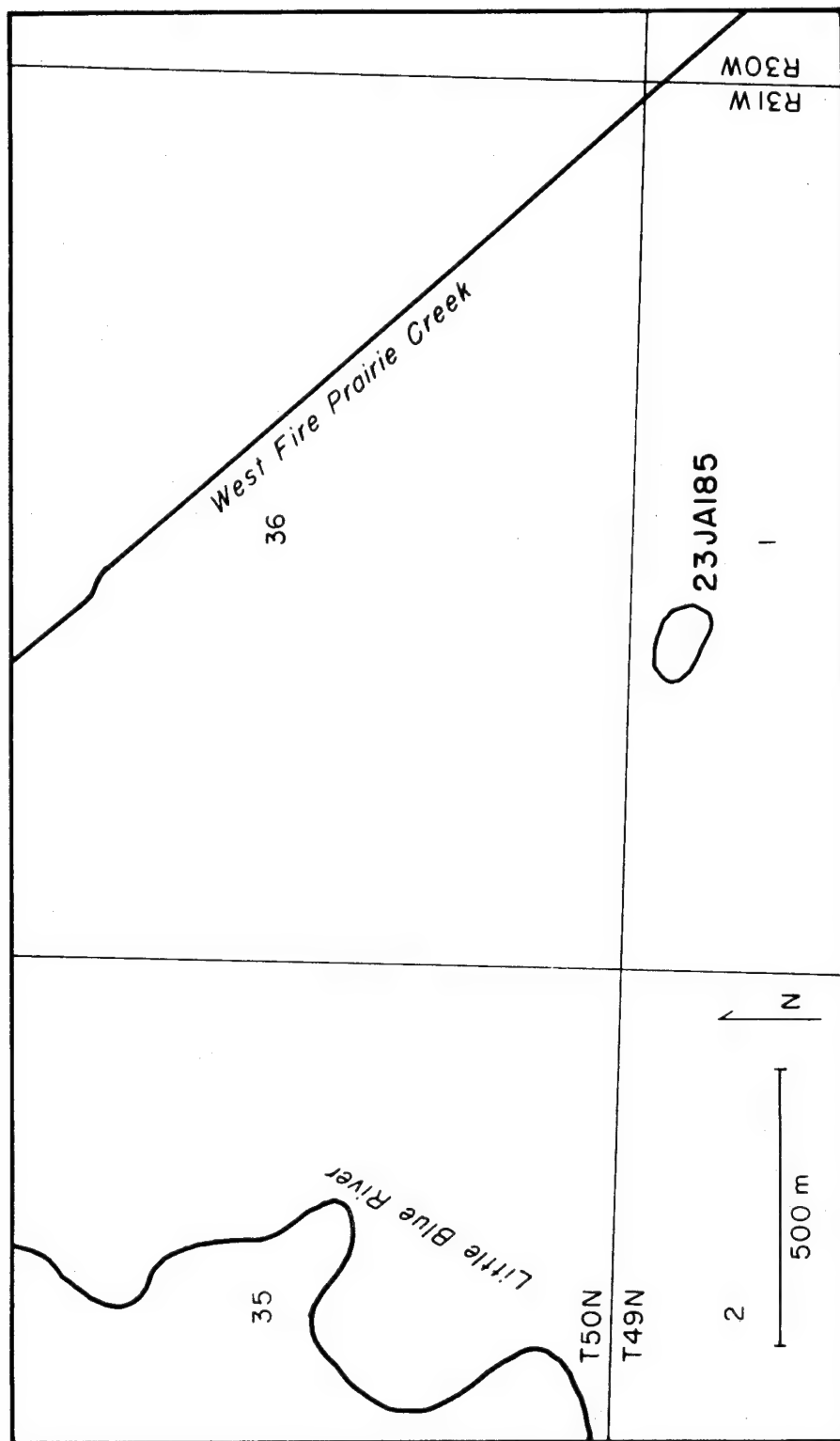


Figure 1. Location of site 23JA185.

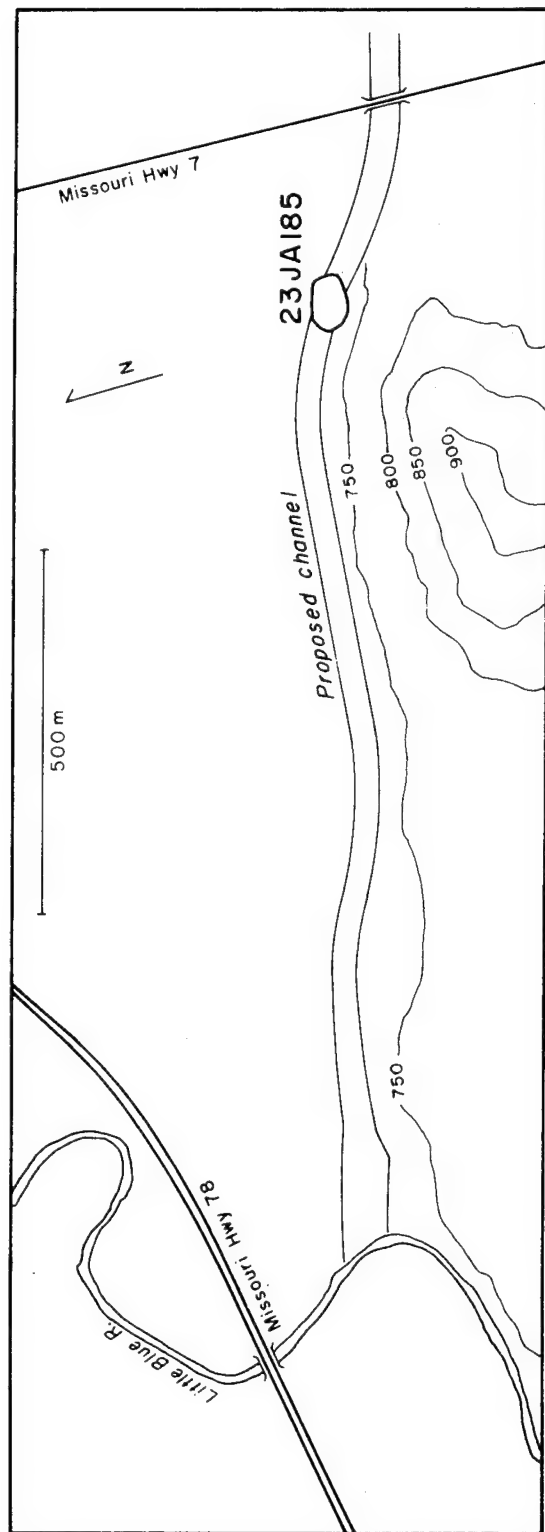


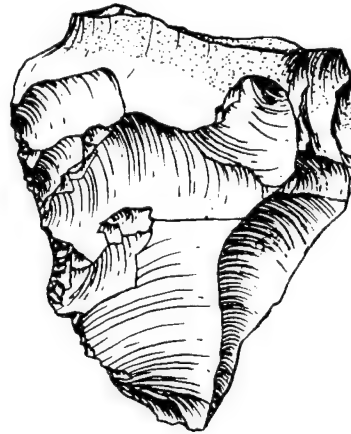
Figure 2. Location of site 23JA185 with respect to the proposed channel for West Fire Prairie Creek.



Figure 3. A. View of site 23JA185 looking south.
B. View of site 23JA185 looking west.



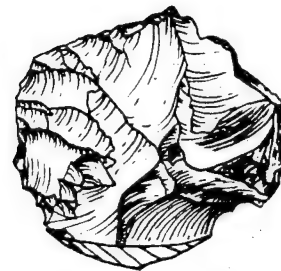
A



B



C



D

5cm

FIGURE 4. Unifaces recovered from site 23JA185.

23JA186

Location: NE $\frac{1}{4}$ of SW $\frac{1}{4}$ of Section 1, township 49 N, range 31 W.

Description: Site 23JA186 is located on the south bluffs overlooking Lake City Arsenal. A local informant, Mr. Joe Callahan, an employee of Lake City Arsenal, designated the location of this archaeological site. The site is adjacent and north of a water tower serving the residences of Lake City Arsenal. A dense growth of trees hindered ground visibility. Fire lanes exposed patches of erosion from which chert flakes were recovered. Horizontal extent of cultural materials could not be delimited. It is estimated that the site covers 12,000 m².

A surface grab sample of six chert flakes was recovered. One flake, a possible knife, exhibits wear resulting from light cutting activities. This site, 23JA186, is located outside the boundaries of the West Fire Prairie Creek impact area. However, it is located on U.S. Government property and in the advent of future impacts it should be reexamined for additional cultural materials and to determine site significance.

<u>Material Recovered</u>	<u>Chert Type</u>	<u>Quantity</u>
flakes	Winterset	5
utilized flakes	Winterset	1

Summary and Conclusions

The one prehistoric archaeological site, 23JA185, within the impact area of the West Fire Prairie Creek channel-modification project, warrants further investigation. It is recommended that 23JA185 be tested by means of a series of test excavation squares, in order to determine the horizontal and vertical extent of the site and to acquire diagnostic artifacts so cultural affiliation can be assigned. Results of the testing may indicate the site's eligibility for nomination to the National Register and the need for further excavation of the site in view of its location within the proposed channel of West Fire Prairie Creek (Fig. 2).

In the advent of future impacts, it is recommended that site 23JA186, located on U.S. Government property, be reexamined for additional cultural materials to determine site significance and eligibility for nomination to the National Register.

Site 23JA85

Location: NW $\frac{1}{4}$ of SW $\frac{1}{4}$ of NE $\frac{1}{4}$, Section 10, township 49 N, range 31 W.

Description: Site 23JA85 is situated on a terrace on the east side of the Little Blue River (Fig. 5) at an elevation of approximately 693 feet above mean sea level. During the summer of 1975, Mike Heffner, of the University of Kansas, conducted preliminary test exca-

vations at 23JA85 to assess the significance of the site and its location with respect to the Little Blue River channel-modification project (Heffner and Martin 1976:17-30).

Work conducted in 1977: Work conducted in the early summer of 1977 consisted of a surface grab sample, test excavations and a soil analysis. During initial examination, the site was covered with grass and no surface cultural material could be located. In an effort to determine the boundaries of the site, a 5400 m² portion of the field was plowed (Fig. 5). After a heavy rain a surface grab sample was made (Table 2).

Test excavations consisted of 22 1x1 m test pits (Fig. 5). A metal datum marker was established in the northeast corner of the field. The datum is the point 500 East, 500 North, within the grid system. Vertical elevations were taken from the top of the metal datum marker. After removal of the plow zone (30 cm) test squares were excavated in arbitrary 5 cm levels to depths of 50 cm to one meter. Placement of these squares was based on information from the previous survey (Heffner and Martin 1976:17-30).

Four test pits, numbers 1 through 4, were dug to a depth of one meter below the present surface of the ground (Fig. 5). All other test squares were dug to depths of 40 to 50 cm. The plow zone extended to a depth of 25 to 30 cm and was composed of dark, humic soil. Beneath the plow zone was a brown clay. Test squares 5 through 8 (Fig. 5) indicated an orange-brown loess from the surface of the ground to a depth of at least 50 cm. An undisturbed cultural zone was not discovered.

Additional test pits were manually excavated further west resulting in the determination of buried, undisturbed, cultural materials immediately below plow zone. Test squares numbers 9 through 22 were dug to depths of 50 cm (Fig. 5). The plow zone extended to a depth of 25 cm and was composed of a dark, silty soil. Materials recovered from test squares are listed in Table 3.

Soil samples were taken at 128 points across 23JA85, most at 10 m intervals (Fig. 6). Values for phosphate were determined from these samples after the top 30 cm of each sample was discarded to eliminate modern contamination. Figure 6 gives the phosphate values from each sample location. Phosphate tests can be used to locate and delimit prehistoric settlements. As people deposits wastes they bring about changes in the soil, which can be identified through soil analyses (Filer 1977:134; Zabel 1976:110-115)

Diagnostic Artifacts and Cultural Affiliation

Corner-notched projectile point (Fig. 7(E)): One, fragmentary, corner-notched projectile point manufactured from Winterset chert was recovered from the surface. The projectile point is probably affiliated with a Late Woodland occupation (Perino 1971:100).

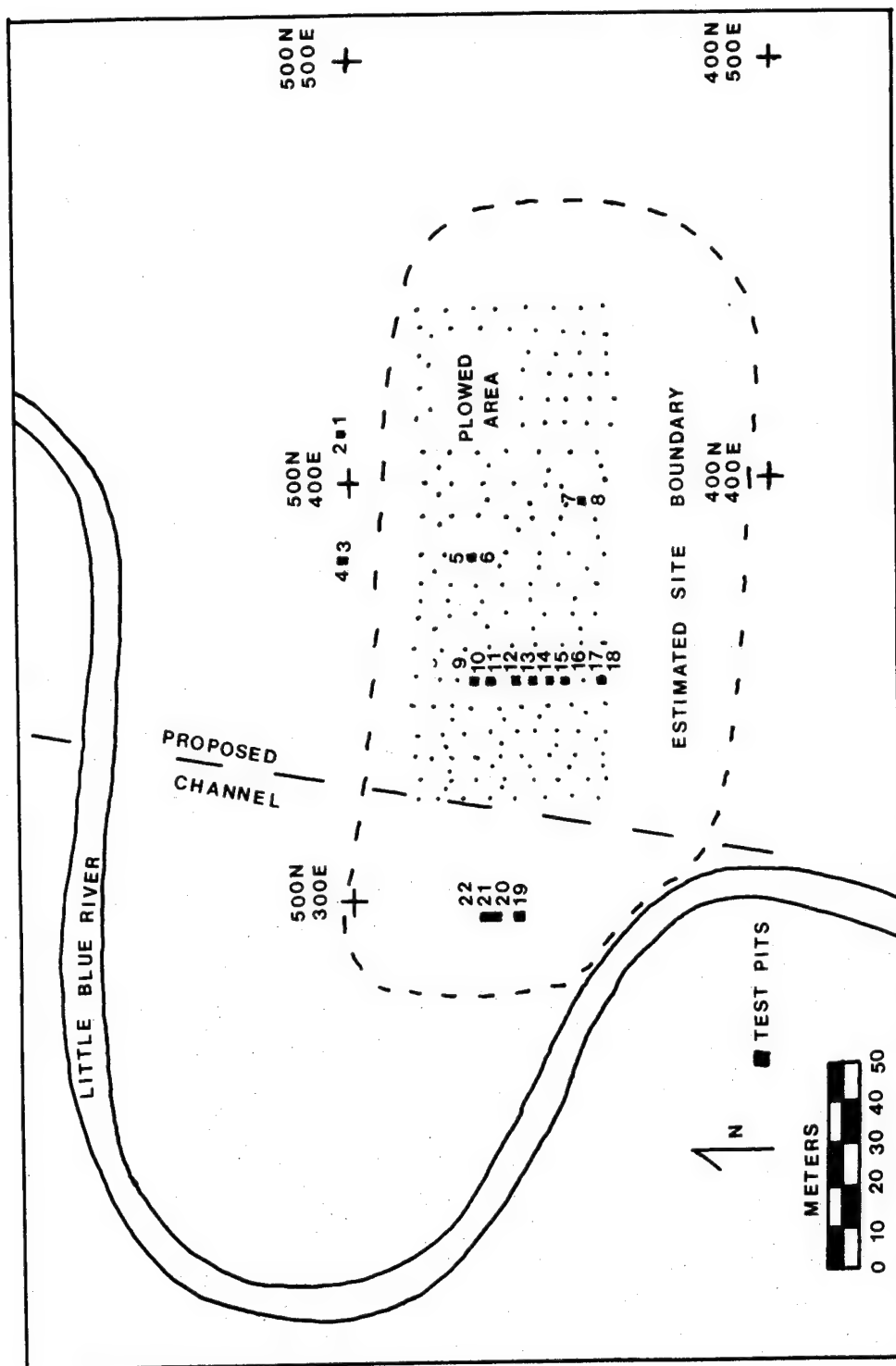


Figure 5. Test areas at site 23JA85.

Table 2

Materials Recovered From The Surface of 23JA85

<u>Artifact</u>	<u>Chert Type</u>	<u>not heated</u>	<u>heated</u>
flakes	Winterset	988	-
	Westerville	31	16
	Argentine	2	2
utilized flakes	Winterset	28	-
	Westerville	2	-
	Argentine	1	-
	non-local	1	-
retouched flakes	Winterset	37	-
	Westerville	1	-
	Argentine	1	-
shatter	Winterset	31	-
	Westerville	36	12
	Argentine	4	1
potlids	Winterset	-	6
cores	Winterset	9	-
	Argentine	2	-
unifaces	Winterset	1	-
bifaces (including points)	Winterset	21	-
	Westerville	-	3
	non-local	-	1
worked stone		2	-
unworked stone	limestone	23	22
	sandstone	65	24
	granite	1	1
	chert	9	1
limonite and hematite		1	-
pottery		-	3

Table 3

Materials Recovered From Test Squares at 23JA85.

<u>Artifact</u>	<u>Chert type</u>	<u>Quantity</u>
<u>Square 411 East, 500 North (1)</u>		
flakes	Winterset	24
	heated Westerville	2
utilized flakes	Winterset	1
	Westerville	1
shatter	Winterset	2
unworked stone		2
hematite and limonite		2
burned earth		1
limestone		2
<u>Square 410 East, 500 North (2)</u>		
flakes	Winterset	12
	Westerville	3
	heated Westerville	2
	Argentine	1
	non-local	1
utilized flakes	Winterset	19
unworked stone		39
hematite and limonite		2
<u>Square 381 East, 499 North (3)</u>		
shatter	Winterset	1
<u>Square 380 East, 499 North (4)</u>		
nothing was recovered from this test square		

Table 3 (cont'd)

<u>Artifact</u>	<u>Chert type</u>	<u>Quantity</u>
<u>Square 380 East, 471 North (5)</u>		
flakes	Winterset	28
	Westerville	3
	heated Westerville	4
	heated Argentine	1
	Argentine	1
utilized flakes	Winterset	6
retouched flakes	Winterset	3
cores	Winterset	1
pottery		1
unworked stone		190
hematite and limonite		18
limestone		3
<u>Square 380 East, 470 North (6)</u>		
flakes	Winterset	41
	Westerville	1
	heated Westerville	1
	Argentine	1
	heated Argentine	1
retouched flakes	Winterset	1
cores	Winterset	1
projectile points	Westerville	1
unworked stone		10
hematite		2
<u>Square 395 East, 446 North (7)</u>		
flakes	Winterset	10
	Westerville	2
retouched flakes	Winterset	2
projectile point	heated, non-local	1

Table 3 (cont'd)

<u>Artifact</u>	<u>Chert type</u>	<u>Quantity</u>
unworked stone		5
<u>Square 395 East, 445 North (8)</u>		
flakes	Winterset	9
utilized flakes	Winterset	1
shatter	Westerville	1
<u>Square 350 East, 471 North (9)</u>		
flakes	Winterset	4
	Westerville	1
	heated Westerville	1
retouched flakes	Winterset	1
unworked stone		1
burned earth		8
limestone		2
<u>Square 350 East, 470 North (10)</u>		
flakes	Winterset	17
utilized flakes	Winterset	1
shatter	Winterset	3
pottery		10
unworked stone		15
burned earth		17
limestone		5
unworked bone		5
<u>Square 350 East, 467 North (11)</u>		
flakes	Winterset	1
unworked stone		2

Table 3 (cont'd)

<u>Artifact</u>	<u>Chert type</u>	<u>Quantity</u>
<u>Square 350 East, 461 North (12)</u>		
flakes	Winterset	7
	Westerville	1
	heated Westerville	1
shatter	Winterset	1
unworked stone		42
hematite		2
<u>Square 350 East, 457 North (13)</u>		
flakes	Winterset	3
<u>Square 350 East, 453 North (14)</u>		
flakes	Winterset	9
unworked stone		5
burned earth		2
hematite		1
<u>Square 350 East, 449 North (15)</u>		
flakes	Winterset	3
unworked stone		3
hematite and limonite		6
burned earth		1
modern materials		1
<u>Square 350 East, 448 North (16)</u>		
flakes	Winterset	3
unworked stone		9
limonite		3
burned earth		1

Table 3 (cont'd)

<u>Artifact</u>	<u>Chert type</u>	<u>Quantity</u>
<u>Square 350 East, 441 North (17)</u>		
unworked stone		40
burned earth		6
hematite		7
limestone		2
<u>Square 350 East, 440 North (18)</u>		
flakes	Winterset	4
	Westerville	6
	heated Argentine	1
retouched flakes	Winterset	1
	Argentine	1
shatter	heated Argentine	1
unworked stone		21
hematite and limonite		4
<u>Square 295 East, 463 North (19)</u>		
cordmarked pottery sherd		1
<u>Square 295 East, 466 North (20)</u>		
burned earth		1
<u>Square 295 East, 467 North (21)</u>		
flake	Winterset	1
pottery		1
burned earth		3
<u>Square 295 East, 468 North (21)</u>		
unworked stone		1

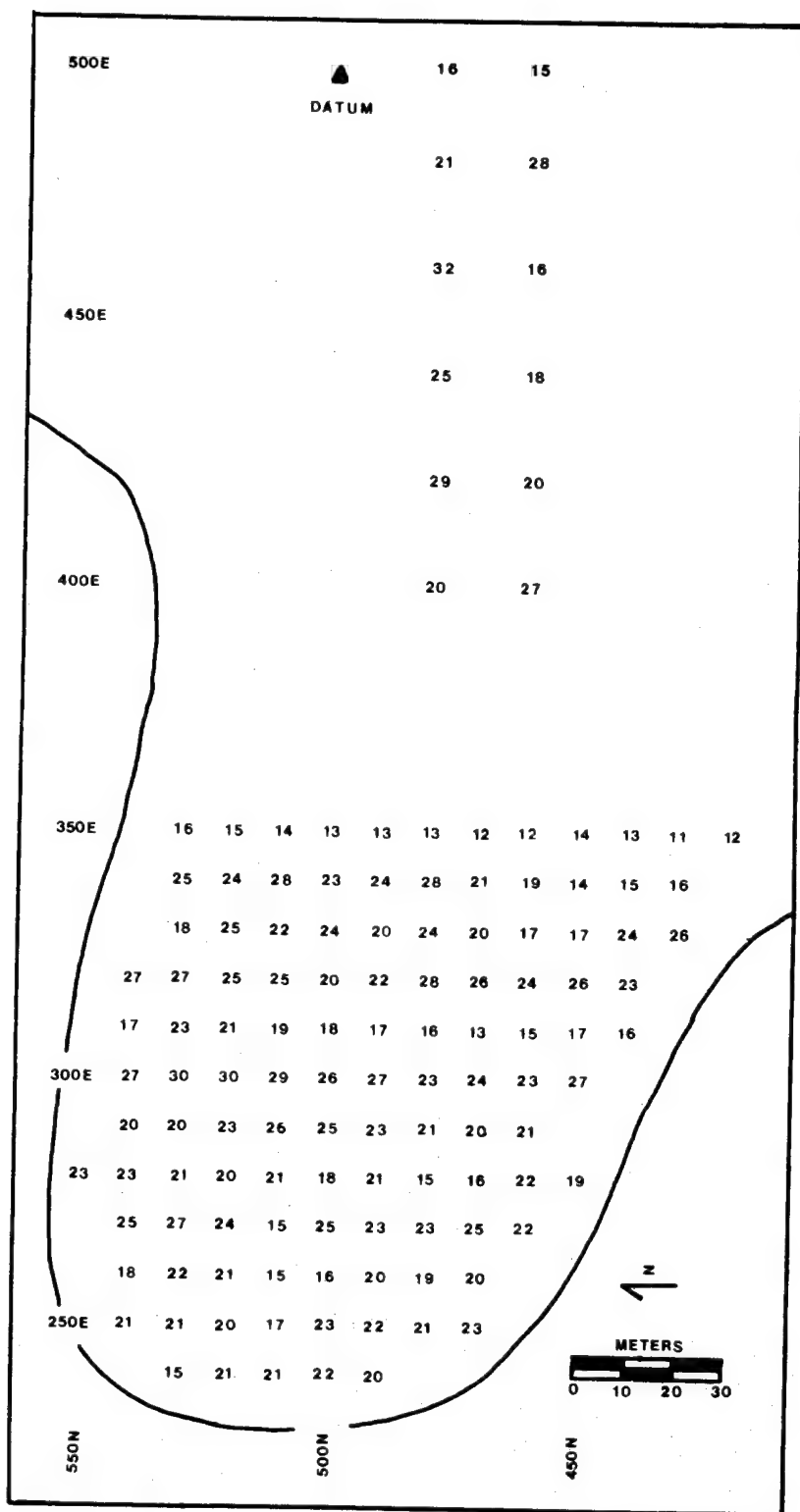


Figure 6. Map showing phosphate values for soil samples taken 30 to 40 cm. deep at site 23JA85.

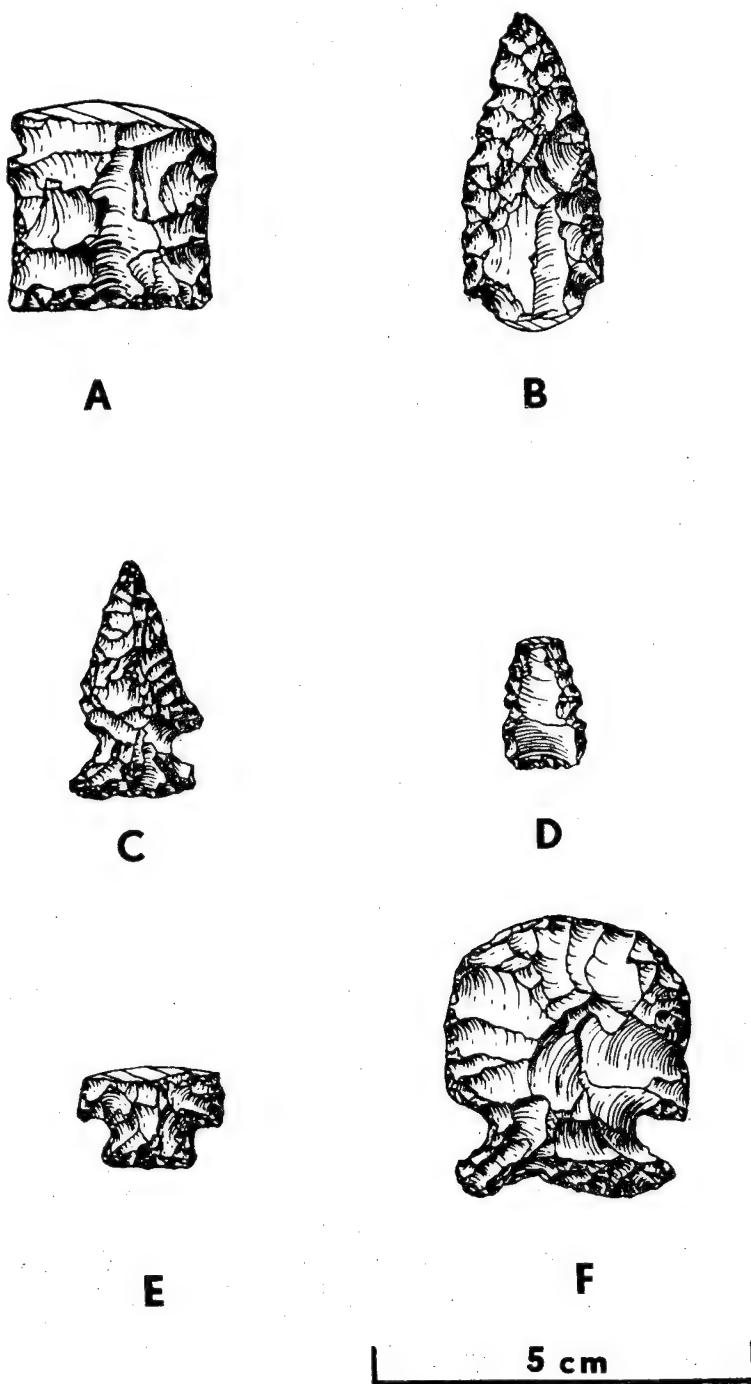


Figure 7. Chipped-stone artifacts from site 23JA85.

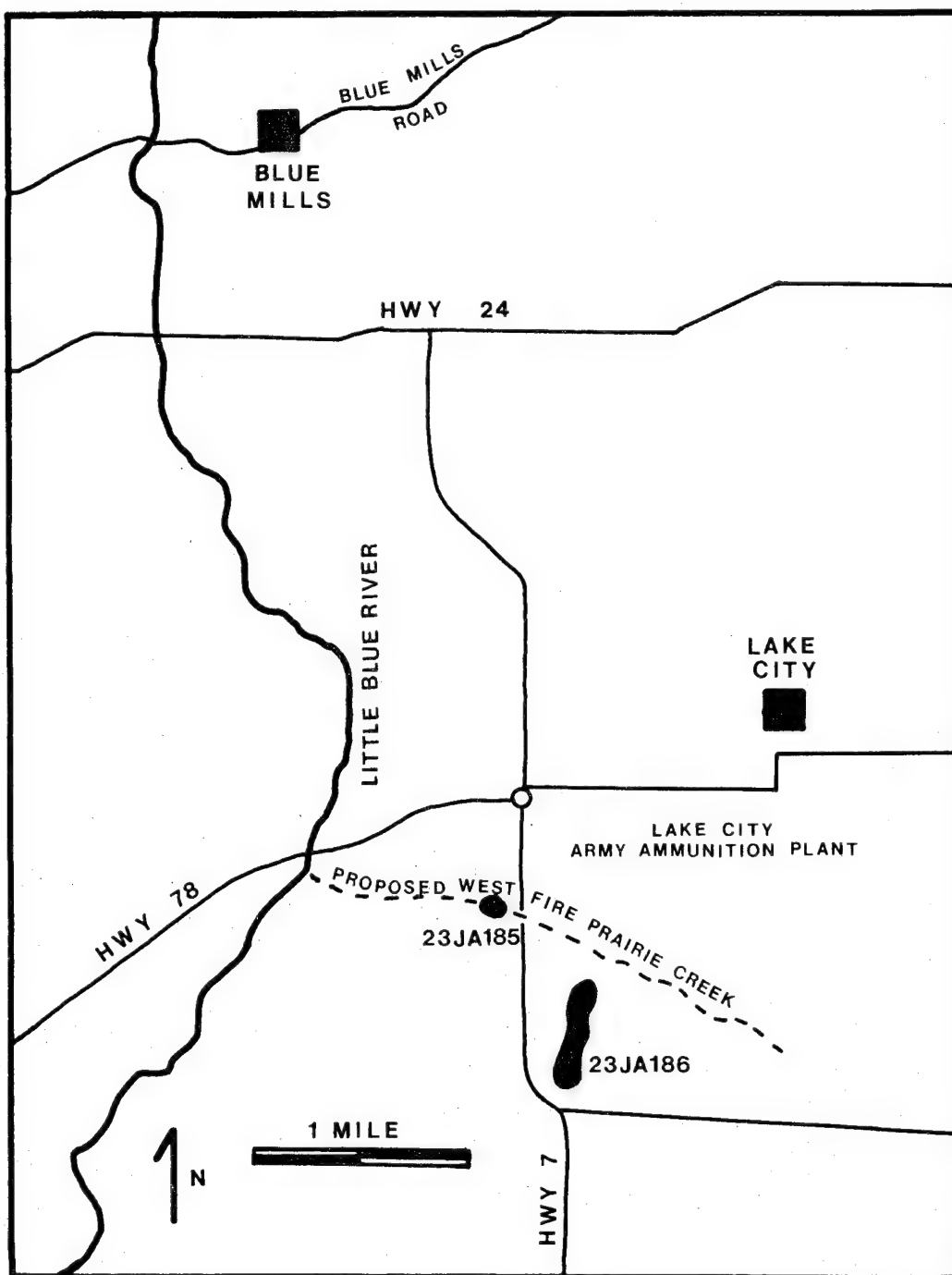


Figure 8. Map showing the location of archaeological and historical areas near the survey region.

Side-notched projectile point (Fig. 7(C)): One, complete, side-notched projectile point manufactured from Winterset chert was recovered from the surface. The projectile point is probably affiliated with a Late Woodland occupation (Perino 1971:100).

Notched projectile point (A0169477)(Fig. 7(B)): One, fragmentary, notched projectile point manufactured from non-local chert was recovered 32 cm below the present surface of the ground. The projectile point is probably associated with a late Archaic occupation.

Stemmed projectile point (Fig. 7(A)): The base of a projectile point manufactured from non-local chert was recovered from the surface. This projectile point has a wide stem (27 mm), ground base, and is similar to stemmed projectile points associated with the Early and Middle Archaic and date from 8000 to 3000 B.C. (Chapman 1975:126-183). A similar early projectile point fragment was recovered from the site in 1975 (Heffner and Martin 1976:22).

Side-notched projectile point (A0171677)(Fig. 7(D)): One, small, side-notched projectile point manufactured from Westerville chert was recovered from 21 cm below the present surface of the ground. The projectile point is a small arrow point dating from Late Woodland to Steed-Kisker (A.D. 500 to 1250).

Pottery sherds (Table 4) recovered from the surface and test squares are probably affiliated with a Late Woodland (A.D. 500 to 1000) occupation of the site. Method of finishing was probably with use of a paddle and anvil. The one cordmarked sherd suggests a paddle or stick wrapped with a cord was also used. All other sherds have plain exterior surfaces. Vessel shape and size are unknown due to the fragmentary nature of the collection. Tempering is crushed granite. Temper particles range in size from .5 to 3 mm. All samples have hematite inclusions in the paste. Exterior color ranges from reddish yellow to yellow brown. Interior color ranges from very dark gray to pale brown (Munsell Color Chert 1975 edition). Five sherds have carbon streaks indicating they were fired in a reducing atmosphere or for only a short period of time (Shepard 1956:82).

Summary

Test excavations reveal that most cultural material extends to a depth of 40 cm below the present surface of the ground in the western portion of the site near the proposed Little Blue River Channel. Phosphate values, derived from soil samples, show that relatively high phosphate content occurs in portions of the site within the limits of the proposed channel. This suggests prehistoric occupation of the site extends beyond the plowed portion of the field. The size of the site is estimated to be 9000 m². The large size of the site and the recovered stone tools and pottery suggest a varied range of prehistoric activities. Site 23JA85 probably served as a base camp for prehistoric peoples of the Late Woodland period, while other activities occurred during the Early or Middle Archaic periods, based upon recovered projectile points.

Table 4

Pottery Recovered From The Surface and Test Excavations at 23JA85

<u>Surface treatment</u>	<u>Thickness</u>	<u>Exterior color</u>	<u>Interior color</u>	<u>Temper</u>	<u>Inclusions</u>
plain	6 mm	10YR7/4	7.5YR3/0	granite	hematite
plain	11 mm	10YR7/4	10YR5/2	granite	hematite
plain rim	8 mm	10YR6/3	10YR6/3	granite	hematite
plain	7 mm	10YR6/3	10YR6/3	granite	hematite
plain	7 mm	10YR6/3	10YR6/3	granite	hematite
plain	12 mm	7.5YR6/6	10YR6/3	granite	hematite
cordmarked	10 mm	10YR7/4	10YR6/3	granite	hematite

Recommendations

Surface collections, test excavations and soil analyses indicate undisturbed portions of the site are within the construction right-of-way of the Little Blue River Channel Modification Project. The recovered diagnostic artifacts suggest the site was occupied periodically during the Early or Middle Archaic periods and possibly served as a base camp for Late Woodland peoples. The general lack of knowledge of these prehistoric peoples within the Kansas City area makes it important that a portion of site 23JA85 be salvaged. It is suggested a series of contiguous squares be manually excavated within the proposed channel right-of-way at 23JA85 to recover as much environmental and archaeological data as necessary to evaluate the prehistoric occupation at the site. It is recommended that 23JA85 be nominated to the National Register of Historic Places (also see Heffner and Martin 1976: 44).

Historical Survey in the Area of West Fire Prairie Creek

Byron Dixon

Lake City is a hamlet in Jackson County, Missouri which has become enveloped by the growing Kansas City metropolitan area. This is much like the history of the Blue Springs and Longview Lakes areas, also in the Little Blue River Valley (Dixon 1977). While Lake City has a history and identity of its own, many themes developed in that report will be repeated, more succinctly, here. Regional development over centuries of historical activity, the effect of American settlement, railroad building, and its proximity to Kansas City in the industrial period, make the outline of Lake City's history the same as its neighbors to the south and west.

There is little need to repeat in depth the historical information concerning pre-settlement development of the area. The Kansa, Osage and Missouri tribes trapped along the waterways and hunted on the plains of the region, each contesting the other's claims to the area's resources. European contact and economic ties with the natives altered the tribes' material culture. The tribes came to be dependent upon trade with the Europeans in order to receive metal, cloth and other goods the whites exchanged for furs. Their presence, beginning in the 16th century, set the stage for the American assumption of sovereignty in the late 18th century and for the establishment of American settlements in the early 19th century. The removal of local tribal groups was realized before settlement was well underway in the 1840s (Henning 1974).

The Lake City area was originally part of the Fort Osage reservation. This was an outpost that established an American military presence in the distant frontier and was the site of treaty signings which led to the removal of the Osages, in particular (Athearn 1967). The Osage Trace, an important trail of the early American period, passed near the project area, but its exact location has not been determined. In fact, much of the area was under water, with swamps and lakes dominating the area between Fire Prairie Creek and the Little Blue River (Stevens 1961:3-4).

The early American permanent civilian population of what would become Lake City was dominated by the Hudspeth family. R. N. Hudspeth, J. R. Hudspeth, Wm. Hudspeth and L. Hudspeth all owned considerable amounts of land in the immediate vicinity of Lake City by the time of the publication of the 1877 plat book. The Hudspeths were still prominent in the region in the 20th century, with the 1920 plat book showing S. O. and M. B. Hudspeth as important land owners (Plat Book 1920). R. N. Hudspeth was instrumental in the platting of Lake City itself.

As one of the first regions in the county to be settled by Americans, this part of the Little Blue Valley was the site of some impor-

tant early developments in the Americanization process. Besides the presence of Fort Osage, the area was the location of one of the first mills in Jackson County built near where the Osage Trace crossed the Little Blue River. The settlement that grew around the mill came to be called Blue Mills (Fig. 8). The settlement was also the home of the first church to be built in the county. Six Mile Baptist Church was founded in 1836 (McCurdy 1969; Bryan 1938).

Economic activity in the Lake City area was dominated by hemp agriculture with slaves providing much of the labor during the antebellum period. Wheat was also an important crop in this early era and would become dominant in later years as milling facilities, transportation and markets developed. As Louise Stevens pointed out, in the 20th century agriculture consisted primarily of "... grain and stock farms raising corn, wheat and oats, with some of the smaller farms raising fruit on a commercial scale" (Stevens 1961:8-12).

Through the 19th and 20th centuries, agriculture remained a vital part of the economy of the area. But by the mid-19th century the railroad was making new activities possible and by the mid-20th century farming was no longer the most important activity.

In the post-Civil War period, railroad expansion altered the relationships which had previously existed between Kansas City and other, less urban areas of Jackson County. My earlier report (Dixon 1977) discussed this in relation to Little Blue township. Lake City's experience was much the same. The Missouri Pacific Railroad had its main freight line pass through Lake City, with passenger trains also stopping there. Thus, in the latter part of the 19th century, the town became a readily-available recreation area. It developed into a resort town famous for duck hunting in the waterways nearby, with a race track and other facilities also present. The lake was drained beginning in the 1880s to provide land for farming, diminishing its recreational value, but it was used for duck hunting into the 1920s (Stevens 1961:10).

The community remained an agricultural and resort area well into the 20th century. But the middle decades of this century brought drastic changes to the town of Lake City. The most important cause of these changes was the decision to locate a huge munitions plant in Lake City during World War II. This development and the expansion of Independence and Kansas City after the war has led to the almost total alteration of the community of Lake City.

The Lake City Arsenal was first proposed in October 1940. It was to become the largest single employer in the Kansas City area at the height of the war in Vietnam. While this long term development of the arsenal inevitably brought Lake City into the mainstream of urban-suburban Kansas City, its immediate impact in the 1940s was felt more directly by the 35 families that were required to give up their farms or land for the facility (A Memorial and Biographical Record of Jackson County, Missouri 1896). The suburbanization of the area also changed

the nature of the Lake City area. Independence spread its borders ever closer to Lake City in the mid-20th century and, by the early 1950s Louise Stevens wondered if the town of Lake City was losing its separate identity completely. In her history of the town, Stevens (1961:15) concludes that,

Today the Lake is a memory of only the oldest residents. The little village is almost forgotten, but what is said to be the largest small arms factory in the world keeps alive the name: Lake City.

In conclusion, no suggestions are offered or requests made concerning significant historical objects or features in the Lake City area. There are no significant historical materials present within the impact area of the proposed channel of West Fire Prairie Creek. Historical events significant to the area are focused on the corporate boundaries of Lake City proper and Blue Mills, located north of the impact area (Fig. 8).

Architectural Survey Along West Fire Prairie Creek

Susan Richards

The architecture of the area along West Fire Prairie Creek, Jackson County, Missouri, is the subject of this report. Previous inventories of adjoining areas have been compiled by Dankers Lauderdale (1977) and Raymond Dryz (1975). The purpose of such an inventory is to prevent the unnecessary demolition of structures that are vital links with our architectural past. Countless remnants of our architectural past, in particular, have disappeared because of the careless or ignorant actions of different parties. Our duty is to preserve those buildings that represent particular styles and cultural roots of societies no longer in existence. Only through these tangible elements can we truly understand the methods of construction once employed by the predecessors of a specific region which is, in this case, along West Fire Prairie Creek, Jackson County, Missouri.

In this report suggestions will be made as to those structures along West Fire Prairie Creek that should be allowed to remain standing. These structures serve as physical connectors between the past and the present. They answer questions about methods of construction, aesthetics, tastes and economic factors of particular times and places. Preservation of such educational structures is of the utmost necessity.

During the field survey, 7½ minute U.S.G.S. quadrangle maps were used to locate all structures within the survey area that would be affected directly by the rerouting of West Fire Prairie Creek. The majority of the work concerned an examination of Lake City Arsenal, a United States Army ammunition plant. Guided by an Army escort, the base was surveyed for structures of architectural significance.

An attempt to find structures that were of architectural significance in relation to the history of the Little Blue River areas was conducted. This phase of the inventory along the proposed West Fire Prairie Creek channel, however, turned up no such structures that were of a quality and distinction worthy of preservation. This does not imply that the structures now standing within the boundaries of the survey should be immediately leveled. The findings simply indicate that no outstanding examples of architecture were found in this phase of the inventory.

In order for an architectural structure to qualify for nomination to the National Register it must have significance in American history or architecture, and possess integrity of location, design, setting, materials, and workmanship. It must have been associated with events that have made a significant contribution to the broad patterns of American history or associated with the lives of persons significant in the past, or embody distinctive characteristics of type, period or method of construction or possess high artistic values. Properties

less than 50 years old are not normally considered eligible for nomination unless they are of exceptional importance (36CFRVIII 800.10).

Construction of Lake City Arsenal began in 1941, which makes the structures built from that year to the present unable to be cited for preservation, since they are less than 50 years old and are not of exceptional importance. None of the existing Army buildings fit the above criteria for significance. They were of war and postwar, industrial construction, built of brick and others had a framed construction with clapboard siding.

To give a general, overall impression of these buildings, photographs of the first six buildings constructed on the base in 1941 are shown in Figures 9 through 11. These photographs are meant to serve as an indication of what exists within the confines of Lake City Arsenal. It is not suggested that these buildings be preserved because of any architecturally-significant qualities. It is only to note visually the particular building type found in the area and to bear proof of my conclusion.

The Army guide informed me that the tract of land purchased for the Army base was originally occupied by several farms. All of the farm buildings were demolished to make room for the new military structures, except for a barn that managed to survive until a few years ago. This barn seemed to have been of notable character because all of its structural members were of handhewn timbers. Since the Army could find no functional use for the barn, it was eventually razed.

Of interest, but of little architectural significance, was a house on the base that had been built in the early 1940s. This one-and-one-half story house is modest in size and design, and can be found in many towns throughout the United States (Fig. 12). Mention of the house is only to note a style in existence in post-World War II that is both neat in appearance and functional.

Upon completion of the architectural survey of Lake City Arsenal, coverage of adjacent areas that would come into conflict with the re-routing of West Fire Prairie Creek was conducted. A few farms on a county road one-and-one-half miles southwest of the Army base are adjacent to the proposed channel. Photographs of one barn and one small house from this area are included (Figs. 12 and 13). Neither of these structures is worthy of preservation, but their importance lies in the social aspect they represent. The inhabitants of the Little Blue River Valley were farmers of modest means who could not afford fancy farms or the elaborate homes of their nearby Kansas City neighbors. There is now some value in the modest structures found in this area. They indicate how all types of people -- the poor as well as the wealthy -- lived. Much of the hand-crafted, vernacular architecture of these people is as educational as that produced by the wealthier landowners. In order to understand how all people of a particular time lived, we must have a cross-sectional representation of existing building types and styles.

Other structures in the survey area, consisting of dilapidated farm out-buildings, do not warrant preservation. A house that is outside the construction limits of the proposed channel, however, is of potential significance. This two-story, frame house with clapboard siding is in poor condition and is no longer in use (Fig. 13). It is located upon a hill, directly west of the southern boundaries of Lake City Arsenal. The structure probably dates to the latter 1890s to early 1900s. The style is comparable to farm houses built at that time.

In conclusion, no suggestions are offered or requests made about the buildings studied, where architectural significance or preservation are concerned. The structures noted are of interest, and in all cases are not in danger of demolition by the rechanneling of West Fire Prairie Creek. Their existence was noted as a part of the past and present ways of living in this area. Their contribution to society lies in the fact that they evolved because of the functional needs of the people in the area, and they remain standing to continue serving those needs.

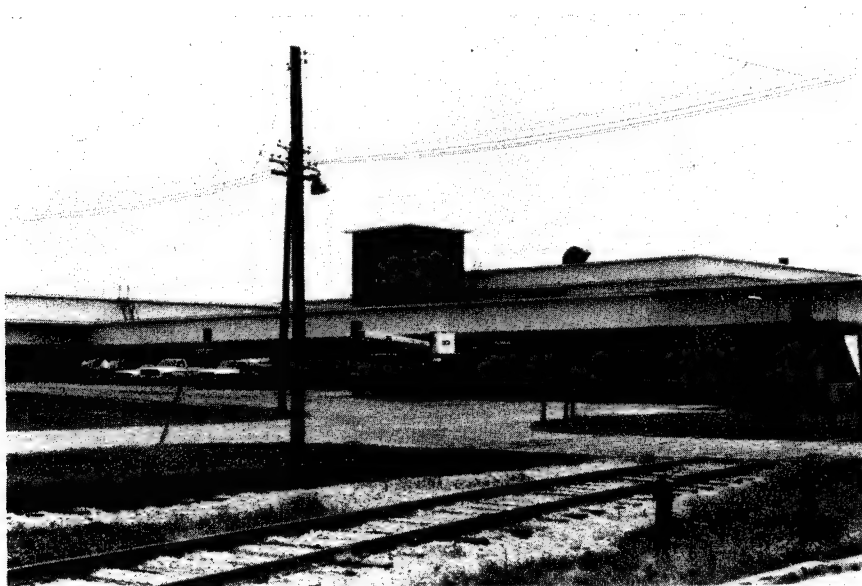


Figure 9. Buildings located in Lake City Arsenal.

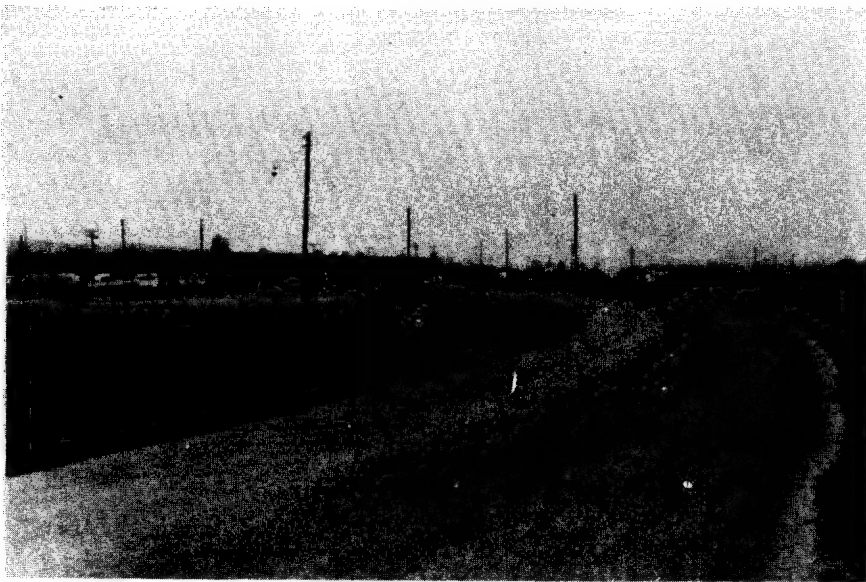
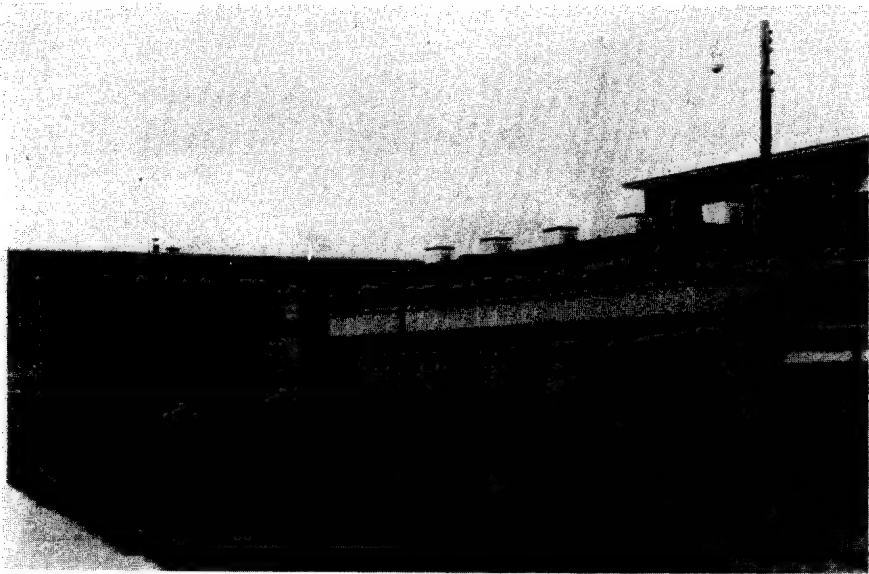


Figure 10. Buildings located in Lake City Arsenal.

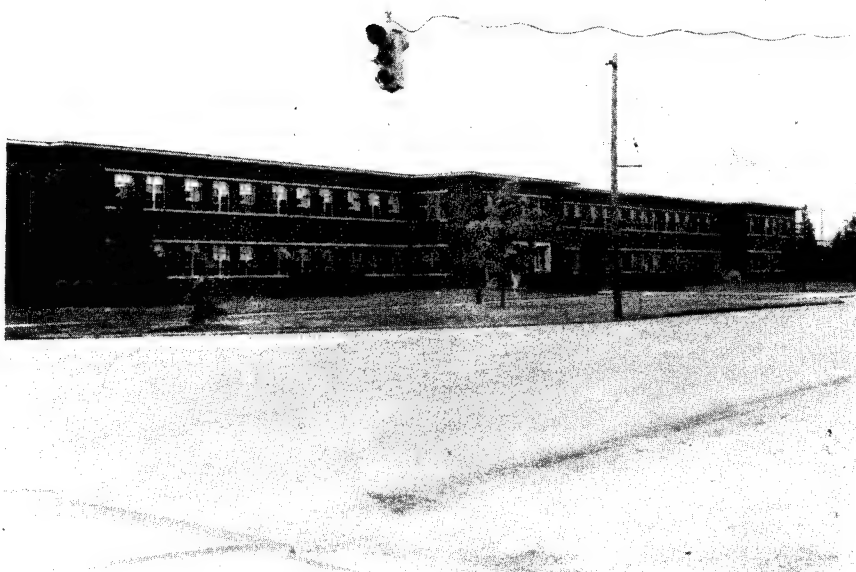
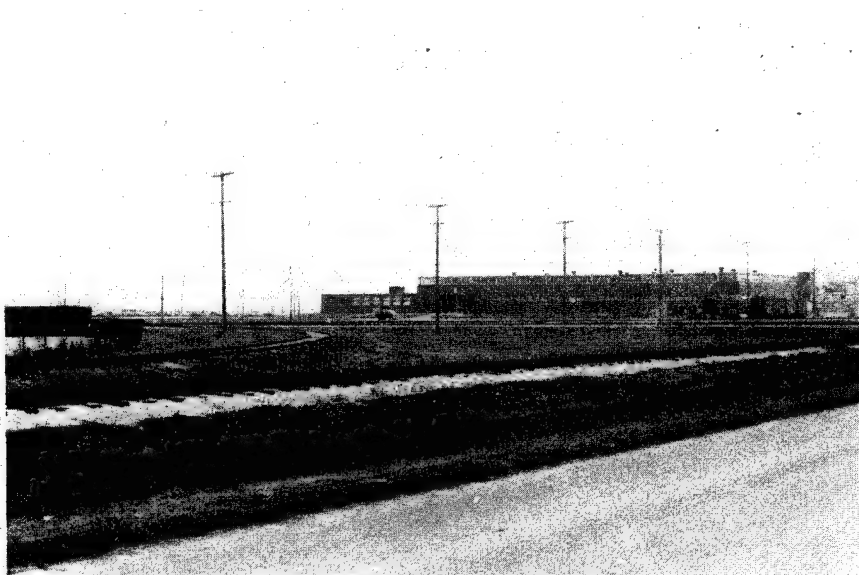


Figure 11. Buildings located in Lake City Arsenal.



Figure 12. A. Residence located in Lake City Arsenal and
B. barn located on private property.

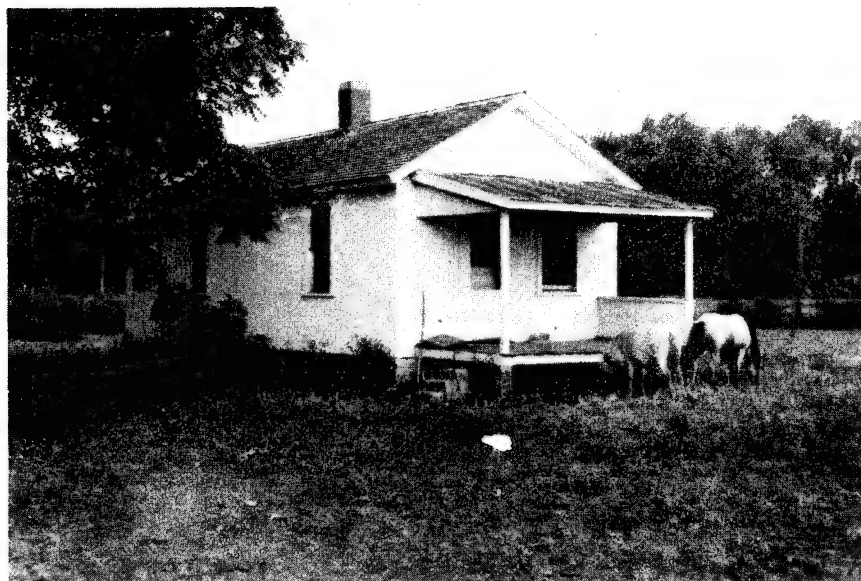


Figure 13. Houses located on private property adjacent to proposed channel.

Summary and Recommendations

Kenneth Brown

Two archaeological sites were found during the survey of the proposed channel for West Fire Prairie Creek. One site, 23JA186, lies outside the impact area boundary. However, the site is located on U.S. Government Property and, in the event of future impacts, it should be reexamined for significance and eligibility for nomination to the National Register of Historic Places. The other site, 23JA185, lies within the impact area of the proposed channel. No diagnostic artifacts were recovered. It is recommended that test excavations be carried out to determine horizontal and vertical extent of the site. On the basis of present information the site is potentially significant, but data are lacking to determine site eligibility for the National Register of Historic Places.

Surface collections, test excavations, and soil analyses indicate site 23JA85 is within the impact area of the Little Blue River Channel-Modification Project. Materials recovered indicate Early Archaic, Langtry Complex and Late Woodland occupation of the site. Undisturbed cultural materials were recovered from test excavations within the channel right-of-way. The three cultural periods mentioned above are not well known in the Kansas City area. It is recommended that 23JA85 be nominated to the National Register of Historic Places as a significant archaeological site. It is recommended that data from the site should be preserved by additional excavations. A series of contiguous excavation squares dug within the channel right-of-way, to recover pertinent environmental and archaeological materials, would facilitate collection and preservation of significant materials from the adverse impact of channel modification.

Survey of the impact area and files of the Missouri Office of Historic Preservation indicate no significant historical or architectural resources within the impact area of the proposed West Fire Prairie Creek channel. No historical or architectural sites are eligible for nomination to the National Register of Historic Places.

References Cited

Anonymous

- 1974 Advisory Council on Historic Preservation: Procedures for the Protection of Historic and Cultural Properties. Title 36, Chapter VIII, Part 800.10 of the Code of Federal Regulations. Washington, D.C.
- 1896 A Memorial and Biographical Record of Jackson County, Missouri. Chicago.
- 1975 Munsell Soil Color Chart. MacBeth Division of Killmorgen Corporation, Baltimore.
- 1877 Plat Book of Jackson County, Missouri.
- 1920 Plat Book of Jackson County, Missouri.

Athearn, R.G.

- 1967 Forts of the Upper Missouri River. Prentice-Hall, Englewood Cliffs, New Jersey.

Bellrose, F.C.

- 1968 Waterfowl Migration Corridors East of the Rocky Mountains in the United States. Illinois Natural History Survey, Biological Notes No. 61, Urbana.

Baumler, Mark

- 1976 An Initial Prehistoric Settlement-Subsistence Analysis for the Little Blue River Valley. In, Little Blue River Channel-Modification Project, Archaeological Research Design. MS, Kansas City District Corps of Engineers, Department of the Army. Kansas City, Missouri.

Bryan, W.S.

- 1938 A History of the Pioneer Families of Missouri. Bryan Brand and Co., St. Louis.

Chapman, C.H.

- 1975 The Archaeology of Missouri. University of Missouri Press, Columbia.

Crabtree, D.C. and B.R. Butler

- 1964 Notes on Experiments in Flint Knapping: 1, Heat Treatment of Silica Materials. Tebiwa, Vol. 7, No. 1, pp. 1-6.

Crabtree, D.C.

- 1972 An Introduction to Flintworking. Idaho University State Museum Occasional Papers, No. 28.

Dixon, Byron

- 1977 A History of the Blue Springs and Longview Lakes Impact Areas. In, Historic and Prehistoric Cultural Resources of the Blue Springs and Longview Lakes, Jackson County, Missouri, pp. 163-178. Compiled by K.L. Brown. MS, Kansas City District Corps of Engineers, Department of the Army. Kansas City, Missouri.

Dryz, Raymond

- 1975 Historic Architecture Within the Little Blue River Corridor. In, Historic and Prehistoric Cultural Resources of the Little Blue River Corridor, pp. 87-104. By K.C. Reid. MS, Kansas City District Corps of Engineers, Department of the Army. Kansas City, Missouri.

Filer, Rebecca and Curtis Sorenson

- 1977 Soils and Geomorphic Study in the Longview and Blue Springs Lakes. In, Historic and Prehistoric Cultural Resources of the Blue Springs and Longview Lakes, Jackson County, Missouri, pp. 134-162. Compiled by K.L. Brown. MS, Kansas City District Corps of Engineers, Department of the Army. Kansas City, Missouri.

Frison, G.C.

- 1978 Prehistoric Hunters of the High Plains. Academic Press, New York.

Heffner, M.L.

- 1974 An Assessment of the Archaeological Resources of the Little Blue River Basin, Jackson County, Missouri. MS, Report submitted to the Midwest Archaeological Center, National Park Service, Department of the Interior.

Heffner, M.L. and J.L. Martin

- 1976 Test Excavations of Selected Prehistoric Sites in the Little Blue River Basin, Jackson County, Missouri. MS, Kansas City District Corps of Engineers, Department of the Army. Kansas City, Missouri.

Henning, D.R.

- 1974 The Osage Nation: 1775-1818. New York.

Jewett, J.M. and N.D. Newell

- 1935 Geology of Wyandotte County, Kansas. State Geological Survey of Kansas, Bulletin 23, Part 2. Lawrence.

Johnson, A.E.

- 1974 Settlement Pattern Variability in Brush Creek Valley, Platte County, Missouri. Plains Anthropologist, Vol. 19, No. 64, pp. 107-122.

Johnson, A.E.

- 1976 A Model of the Kansas City Hopewell Subsistence-Settlement System. In, Hopewellian Archaeology in the Lower Missouri Valley, ed. by A.E. Johnson, pp. 7-15. University of Kansas Publications in Anthropology, No. 8, Lawrence.

Lauderdale, Dankers

- 1977 Historic Architecture of the Blue Springs and Longview Lakes Impact Areas. In, Historic and Prehistoric Cultural Resources of the Blue Springs and Longview Lakes, Jackson County, Missouri, pp. 179-222. Compiled by K.L. Brown. MS, Kansas City District Corps of Engineers, Department of the Army. Kansas City, Missouri.

Martin, T.L.

- 1976 Prehistoric Settlement-Subsistence Relationships in the Fishing River Drainage, Western Missouri. The Missouri Archaeologist, Vol. 37. Columbia, Missouri.

McCourt, W.E.

- 1917 The Geology of Jackson County. Missouri Bureau of Geology and Mines, Vol. 14, 2nd Series, Rolla.

McCurdy, F.L.

- 1969 Stump, Bar, and Pulpit: Speechmaking on the Missouri Frontier. University of Missouri Press, Columbia.

Perino, Gregory

- 1971 Guide to the Identification of Certain American Indian Projectile Points. Oklahoma Anthropological Society, Special Bulletin, No. 4.

Purdy, B.A.

- 1974 Investigations Concerning the Thermal Alteration of Silica Minerals: An Archaeological Approach. Tebiwa, Vol. 17, No. 1, pp. 37-66.

Reeder, R.L.

- 1978 Limited Archaeological Testing of the Coffin Site, 23JA200. Report submitted to the Missouri State Highway Commission and the Federal Highway Administration.

- 1978 The Sohn Site, 23JA110, Jackson County, Missouri. Report submitted to the Missouri State Highway Commission and the Federal Highway Administration.

Reid, K.C.

- 1975 Historic and Prehistoric Cultural Resources of the Little Blue River Corridor. MS, Kansas City District Corps of Engineers, Department of the Army. Kansas City, Missouri.

Reid, K.C.

- 1977 Terrain Variability Within the Nebo Hill Catchment: Some Predictions for Late Archaic Settlement Behavior in the Lower Missouri Valley. Paper presented at the 35th Plains Conference, Lincoln, Nebraska.

- 1978 Nebo Hill. Report submitted to the Missouri State Highway Commission.

Shepard, A.O.

- 1956 Ceramics for the Archaeologist. Carnegie Institution of Washington, Publication 609, Washington, D.C.

Shippee, J.M.

- 1948 Nebo Hill, A Lithic Complex in Western Missouri. American Antiquity, Vol. 14, No. 1, pp. 29-32, Menasha, Wisconsin.

- 1972 Archaeological Remains in the Kansas City Area: The Mississippian Occupation. Missouri Archaeological Society Research Series, No. 9, Columbia, Missouri.

Stevens, Louise

- 1961 A Glimpse into the History of Lake City, Missouri. Jackson County Historical Society, Kansas City, Missouri.

Wedel, W.R.

- 1943 Archaeological Investigations in Platte and Clay Counties, Missouri. Smithsonian Institution, United States National Museum, Bulletin 183, Washington, D.C.

- 1959 An Introduction to Kansas Archaeology. Smithsonian Institution Bureau of American Ethnology, Bulletin 174, Washington, D.C.

Zabel, D.E.

- 1976 Phosphate and pH Analysis of Soil at a Kansas City Hopewell Site, 23PL4. In, Hopewellian Archaeology in the Lower Missouri Valley, ed. by A.E. Johnson, University of Kansas Publications in Anthropology, No. 8, pp. 110-115, Lawrence.

Zeller, D.E.

- 1968 The Stratigraphic Succession in Kansas. State Geological Survey of Kansas, Bulletin 189, University of Kansas Publications, Lawrence.

GOVERNMENT'S REVIEW COMMENTS

1. There are mixed reviews concerning the text. For the most part, the report content was considered generally good, but there are some comments on information and format. The primary format problem centered on editorial corrections which most reviewers found made the report difficult and confusing to read.

Suggestion: Editorial comments and changes should be typed into the text and all pages including figures, maps, etc., should be numbered.

2. Page 2, paragraph 2.

a. Last sentence, clarify what drained east and west - the creek or lake.

b. What unique lake was the Lake City Arsenal named after?

3. Page 3, paragraph 4.

a. Where is the Bethany Falls escarpment?

b. The artifact class definitions appear to be more appropriate in the "Prehistoric Culture Sequence" section.

4. Page 4, paragraph 3.

a. Delete "random" from second sentence. Flake scars are never random unless the raw material was accidentally dropped and broken.

b. Redefine the differences of "chunks" and "shatter" for clarity.

c. Exotic is not a chert type nor on the same level of comparison with Winterset, Westerville, etc. Local and non-local chert are similar levels of comparison.

5. Page 5, paragraph 1. How are modified and utilized flakes separated: i.e., how does one differentiate retouch from wear?

6. Pages 7-8, entire section. Although the cultural sequence should be terse, the whole section includes minimal information and should be expanded.

7. Pages 8-9, all sites. In addition of m^2 size of sites, also give horizontal limits if known or approximations.

8. Pages 9-10 site JA185. The data presented does not indicate that the site warrants further testing. Justification to support additional work must be presented before this decision can be reached.

9. Page 10, paragraph 1. If site JA186 is not to be impacted, there is no need for further investigation. A site does not merit additional examination just because it's on Government property. Six flakes is certainly not enough documentation or justification to warrant further work.
10. Page 10. Summary and Conclusions. By the data and reasoning presented, negative criteria (unknown extent of a site, lack of diagnostic artifacts) cannot justify further investigations at sites JA185 and JA186. The author needs to familiarize himself with the laws and guidelines related to cultural resources management (attached are 33CFR305 and proposed 36CFR66).
11. Page 8, 11, and 24 (Maps following pages). The maps are good, but are too detailed for a published report.
12. Page 20, entire page. Since the artifacts are lettered in Figure 7, these letters should be referred to in the description of the various artifacts, that is corner-notched projectile point (Fig. 7B) instead of just (Fig. 7).
13. Page 20, paragraph 4. Why is a stem (without barbs) typed as Hardin-Barbed? Does this stem have a ground base? If a point is being ascribed to an Early Archaic occupation, discrimination from later types must be demonstrated.
14. Page 22, paragraph 2. Based on the projectile points described, how can Early and Late Archaic period occupations be inferred? Ascription of artifacts (1 or 2) to a specific temporal-cultured occupation is too speculative and is based on inadequate data.
15. Page 28, paragraph 2. Use colon after culture since the following lists represent cultural items.
16. Page 29, paragraphs 1 and 2. Reverse for continuity.
17. Page 29, paragraph 3.
 - a. Discussion of National Register criteria should be used.
 - b. "typically nondescript" does not define buildings. Brief physical descriptions should be inserted.
18. Page 31, paragraph 2. State why no other structures in study area are of significance.
19. Page 33, paragraph 2. Relocate to end of section for continuity.
20. Page 33, paragraph 3. Site does not appear to be in danger of destruction; therefore, it does not warrant further study at this time.

REPLY TO THE GOVERNMENT'S REVIEW COMMENTS ON THE REPORT
FOR WEST FIRE PRAIRIE CREEK

1. All editorial comments and changes have been included in the final report and everything is now paginated.
2. a. It has been clarified that the lake drained east and west.
b. The unique lake did not have a name, other than the hamlet of Lake City being called "Lake City" because it was near the lake.
3. a. Limestone members of the Kansas City Group was substituted for the Bethany Falls escarpment since some of the chert types do not occur in the Bethany Falls escarpment.
b. The artifact classes have been inserted preceeding the Prehistoric Culture Sequence.
4. a. The word "random" has been deleted.
b. The difference between "chunks" and "shatter" was an arbitrary decision based only on size and was therefore deleted. All irregularly shaped pieces of worked chert, other than flakes, which do not have a systematic alignment of cleavage scars on their various faces are referred to as shatter.
c. The term "non-local" has been substituted for "exotic" chert types.
5. The definitions of modified and utilized flakes have been expanded upon.
6. An expanded Prehistoric Culture Sequence has been added.
7. Horizontal limits have been added or approximated, if known.
8. Additional justifications have been added to support further work at site 23JA185.
9. Recommendations for site 23JA186 have been adjusted.
10. Additional justifications have been added to support further work at site 23JA185 and 23JA85.
11. The maps fulfill the requirements of the scope of work.
12. Artifacts are referred to in the text according to their letter designations.
13. The lack of distinctive features of the projectile point base in question has resulted in a reevaluation of the probable cultural affiliation represented by the projectile point.
14. The author believes enough data has been acquired in the last two years to be able to recognize the presence of more specific cultural complexes, particularly between the Middle and Late Archaic periods.

15. The term "culture" has been deleted.
16. These paragraphs have been switched.
17.
 - a. National Register criteria have been added and discussed.
 - b. The term "typically nondescript" has been deleted.
18. Statements concerning other structures in the study area, and their lack of significance, have been added.
19. This paragraph has been relocated.
20. Clarification of the recommendations for site 23JA186 has been made.

OFFICE OF HISTORIC PRESERVATION COMMENTS ON WEST FIRE PRAIRIE
CREEK REPORT AS GIVEN IN A TELEPHONE CONVERSATION ON 31 JULY
1978 TO THE CORPS OF ENGINEERS

1. This study should be in 2 separate reports (1 survey and 1 testing), or 2 parts in 1 report.
2. There is a need to tie in this study with the Little Blue River Channel - clarify the relationship.
3. The abstract should specify sites found and identification by number; discuss the testing aspect.
4. The reprint is generally confusing.
5. Include USGS attachments on Missouri - Office of Historic Preservation's copy. (Report should include area surveyed and site locations - should be free-standing)
6. No comment on the architectural history because there is no affect.
7. In regard to sites 23JA185 and 23JA186, the Office of Historic Preservation agrees with the recommendations to test these sites for significance. The results should be submitted to the State Historic Preservation Office and Advisory Council on Historic Preservation in accordance with 36CFR63. If the sites are eligible for the National Register, then procedures in accordance with 36CFR800.4 & 5 (Advisory Council procedures) should be taken.
8. In regard to 23JA85, the Corps should request a determination of eligibility as soon as possible (a determination of no adverse effect may be appropriate).
9. A major objection to this report is the format and lack of maps.

REPLY TO OFFICE OF HISTORIC PRESERVATION COMMENTS
ON THE WEST FIRE PRAIRIE CREEK REPORT

1. The authors agree, but due to the shortness of this report it is being kept in one volume.
2. Additional introductory paragraphs have been added to tie this study with the Little Blue River channel-modification project.
3. Site numbers and testing programs have been added to the abstract.
4. The author agrees that the reprint is confusing.
5. USGS 7½' topographic maps have been sent to the Office of Historic Preservation.
6. The authors agree.
7. The authors agree.
8. The authors agree.
9. The authors agree to the confusing nature of the report format. Maps in the report fulfill the requirements of the scope of work.



United States Department of the Interior

HERITAGE CONSERVATION AND RECREATION SERVICE
INTERAGENCY ARCHEOLOGICAL SERVICES - DENVER
OFFICE OF ARCHEOLOGY AND HISTORIC PRESERVATION
1978 SOUTH GARRISON - ROOM 107
DENVER, COLORADO 80227

IN REPLY REFER TO:

H2415-(HCRS)PI

AUG 25 1978

Mr. Paul D. Barber
Chief, Engineering Division
Corps of Engineers
700 Federal Building
Kansas City, Missouri 64106

Dear Mr. Barber:

We have reviewed the report on "Prehistoric, Historic and Architectural Resources Along the Proposed Channel of West Fire Prairie Creek, Jackson County, Missouri" by Brown, Dixon and Richards, (DACW41-77-M-1036).

The manuscript is in very rough shape and care should be taken to include your suggested editorial changes marked in the report.

We are not convinced that Ms. Richards understands the National Register of Historic Places criteria and may wish to reconsider some of her recommendations - regardless of where in the project area the structures are located.

The historical section by Mr. Dixon is brief but good and individuals should be alerted to his previous work in the area.

Mr. Brown's section on the archeology we found to be very good. We concur with his recommendations that sites 23JA185 and 23JA186 be tested toward National Register evaluations and consideration. We also agree that site 23JA85 should be nominated to the Register. Sufficient information on the importance of the site is contained in the report that should allow the Corps to seek a determination of eligibility at this time.

If you have any questions on this review or other matters, please feel free to contact us.

Sincerely yours,

J. J. Hoffman
Acting Chief, Interagency
Archeological Services - Denver



REPLY TO THE DEPARTMENT OF THE INTERIOR'S COMMENTS
ON THE WEST FIRE PRAIRIE CREEK REPORT

1. Editorial changes have been included in the final report.
2. Additional paragraphs have been added to clarify that Ms. Richards understands the National Register of Historic Places criteria for site eligibility for nomination to the National Register.
3. The authors agree Mr. Dixon's brief report is good and adequate.
4. The authors agree with the recommendations for sites 23JA185, 23JA186, and 23JA85.